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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,291	06/17/2002	Roger D O'Shaughnessy	440462031604	5902
22859	7590	04/13/2004	EXAMINER	
INTELLECTUAL PROPERTY GROUP FREDRIKSON & BYRON, P.A. 4000 PILLSBURY CENTER 200 SOUTH SIXTH STREET MINNEAPOLIS, MN 55402			BLACKWELL RUDASIL, GWENDOLYN A	
			ART UNIT	PAPER NUMBER
			1775	
DATE MAILED: 04/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/009,291	O'SHAUGHNESSY ET AL.	
	Examiner	Art Unit	
	Gwendolyn A. Blackwell-Rudasill	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54-101 is/are pending in the application.
- 4a) Of the above claim(s) 54-70 and 73-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 71, 72 and 82-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the Paper dated January 12, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The original claims of Group I, claims 1-53 have been cancelled and replaced with new claims 82-101 drawn to similar subject matter, which will now be examined.

The requirement is still deemed proper and is therefore made FINAL.

Oath/Declaration

2. Applicant has indicated on page 16 of the paper dated January 12, 2004 that a new oath or declaration in compliance with 37 CFR 1.67(a) will be provided.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 82-101 are rejected under 35 U.S.C. 103(a) as being obvious over United States Patent no. 5,302,449, Eby et al in view of United States Patent Application Publication no. 2002/0176988, Medwick et al.

Eby et al disclose a high transmittance low E coating for substrates that can have a protective overcoat wherein the glass substrates can be used in insulative glass window units. The overcoat includes sputtered oxides of zinc, tin, indium, bismuth or oxides of alloys including such metal. Zinc oxide is particularly preferred. The overcoat is provided over a mechanically durable coating, such as titanium oxide, because the durable coating is more susceptible to chemical attack, (column 7, lines 20-53). While it does not specifically state that the overcoat is temporary, Eby et al disclose that the overcoat "will not significantly affect the optical properties of the film or the coated substrate", (column 7, lines 60-67). In addition, even if a "washing process were so harsh to wash away the entire overcoat from the film stack" the "overcoat would nonetheless serve to protect the underlying film from abrasion during handling, shipping, or the like prior to washing" thereby indicating that it is not necessary for the overcoat to be permanent, (columns 7-8, lines 67-6). The overcoat has an optical thickness of between 10-40 Å, (column 8, lines 7-19). Eby et al also disclose a base coat on the substrate of a metal oxide such as titanium, hafnium, zirconium, zinc, tin, indium, and bismuth, (column 3, lines 25-40). An infrared radiation reflective metal layer is formed over the base coat with a metal oxide layer formed over the metal reflective layer. The same metal oxides used for the base coat can be used

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for the coating over the metal reflective layer, (columns 3-4, lines 60-35). It is known in the art that titanium oxide has hydrophilic and photocatalytic properties, (columns 3-4, lines 60-35). Eby et al do not specifically disclose that the overcoat can be used on both sides of the substrate.

Medwick et al disclose a light transmissive article with a removable protective coating. The substrate may be coated with one or more functional coatings wherein the protective coating is formed over a functional coating or directly on the substrate, (page 2, sections 0011-0012). The functional coating such a low emissivity coating, may be a single or multiple layer coating comprised of one or more metals, non-metals, semi-metals, semiconductors, and or alloys, compounds, composites, combinations or blends thereof such as metal oxides, (page 3, section 0025). The functional coating can also contain infrared reflecting films, (pages 3-4, section 0026). An example of a functional coating is a reflective metal that may further comprise a primer film or barrier film such as titanium that is located over and/or under the metal reflective layer, (pages 4-5, section 0026). The protective coating can be applied onto one or more surfaces of a substrate having zero, one, or more functional coatings, (page 5, section 0040). Medwick et al further disclose that the functional coating can be deposited utilizing different deposition methods. Furthermore, the functional coatings can be applied to both sides of a substrate with a protective coating formed over at least a portion of the functional coating, (page 4, sections 0027-0030). Glass substrates utilizing the protective coating can be used in IG units, (page 7, section 0054).

Eby et al and Medwick et al disclose inventions that utilize low emissivity coatings with a protective outer coating that can be used on insulative glass window articles. Medwick et al further disclose that it is known that protective coatings can be used not only on the low

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emissivity (functional coating), but also on the exterior surface of the substrate to prevent damage to the surface of the substrate. As such it would be within the skill of one in the art at the time of invention to modify the low emissivity coated substrate of Eby et al using the teachings of Medwick et al to create a coated substrate wherein both surfaces of the substrate are coated with a protective coating that prevents contamination of the surfaces of the substrate or any underlying coating thereon during shipping and handling, (Eby et al, columns 7-8, lines 20-6).

Because Eby et al disclose that the overcoat is comprised of sputtered oxides of zinc, bismuth, or oxides of alloys including such metal wherein zinc oxide is particularly preferred, (column 7, lines 20-53), the physical aspects of the film related to the film being stable in the presence of water and being durable to glass tempering but breaking down in the presence of a mild acid or a mild base, would be present in the overcoat disclosed by Eby et al, as the abovementioned materials are the same as claimed by Applicant.

6. Claims 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 4,952,430, Bowser et al in view of United States Patent Application Publication no. 2002/0176988, Medwick et al further in view of United States Patent no. 5,020,288, Swensen.

Bowser et al disclose an insulated window unit that consists of two or more panes of glass, spaced parallel to each other. A sealing assembly is structurally bonded to the marginal edge of the periphery of the glass, (column 3, lines 15-23). In addition, the glass sheets may be laminated, heat strengthened, or tempered, (column 5, lines 25-28). Bowser et al do not specifically disclose a temporary protective coating.

Medwick et al disclose a light transmissive article with a removable protective coating. The substrate may be coated with one or more functional coatings wherein the protective coating is formed over the functional coatings. The protective coating may also be formed directly on the substrate, (page 2, sections 0011-0012). Removal of the protective coating is achieved by solvent, combustion or thermal decomposition, (page 2, sections 0014-0015). The functional coating may be a single or multiple layer coating comprised of one or more metals, non-metals, semi-metals, semiconductors, and or alloys, compounds, composites, combinations or blends thereof such as metal oxides, (page 3, section 0025). The functional coating can also contain infrared reflecting films. An example of a functional coating that can be used is a reflective metal that may further comprise a primer film or barrier film such as titanium that is located over and/or under the metal reflective layer, (pages 3-4, section 0026). Medwick et al also disclose that the coating is removable by wiping, spraying, or dipping with aqueous or non-aqueous solvents, organic, alkaline or acidic solvents, (page 4, section 0031). The functional coating can be deposited utilizing different deposition methods. Furthermore, the functional coatings can be applied to both sides of a substrate with a protective coating formed over at least a portion of the functional coating, (page 4, sections 0027-0030). The protective coating can be applied onto one or more surfaces of a substrate having zero, one, or more functional coatings, (page 5, section 0040). Decomposure temperatures range from 648-704°C, (page 7, section 0053). In addition, the protective coating can contain metal oxides such as iron oxides, (page 6, section 0051). Medwick et al do not specifically disclose removing portions of the protective coating.

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Swensen demonstrates that it is known in the art to remove central portions of a protective film while keeping the film on the peripheral edges of the glass where the glass and frame meets to create a waterproof barrier, (column 3, lines 37-50).

Bowser et al and Medwick et al are related as a glass structure and a coating for a glass structure. The coated glass of Medwick et al can be used as architectural glass or in an IG unit, (page 7, section 0054). Because the protective coating of Medwick et al is applied to the glass to temporarily protect the functional coatings on the glass substrate, (page 1, section 0002), it would have been obvious to one skilled in the art at the time of invention to use the protective coating of Medwick et al on the exterior surfaces of the insulated window structure of Bowser et al to create an insulated window with a protective overcoat that protects the functional coating on the glass surface during shipping and handling that is later removed.

It would also be within the skill of one in the art at the time of invention to only remove the central portions of the protective film of the Bowser/Medwick window unit to create a seal or gasket between the frame and glass to form a waterproof barrier between the glass and frame, (Swensen, column 3, lines 46-50).

Claim 71 is a product by process claim wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113*. As such, the process limitation within claim 71 does not provide patentable distinction over the prior art of record.

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Response to Arguments

7. Applicant's arguments with respect to present claims 71-72 and in light of new claims 82-101 have been considered but are moot in view of the new ground(s) of rejection. While the claims are rejected using prior art applied in the last office action dated July 2, 2003, the art has been applied in a new way because of Applicant's new claims.

Because the prior art still applies, present claims 71-72 and new claims 82-101 stand rejected under 35 USC 103(a).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is

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(571) 272-1533. The examiner can normally be reached on Monday - Thursday; 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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gbr

Gwendolyn A. Blackwell-Rudasill
Examiner
Art Unit 1775


DEBORAH JONES
SUPERVISORY PATENT EXAMINER